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Fences against a sea of troubles

Human-driven habitat fragmentation reduces global biodiversity and ecosystem functioning (*1*). R. Woodroffe *et al*. ("To fence or not to fence," 4 April, p. 46*2*) claim that fencing, despite some positive outcomes (*2*, *3*), overwhelmingly exacerbates fragmentation and negatively affects wildlife conservation. They suggest fencing should only be considered as a last resort and that fence removal is important for climate change preparedness.

Woodroffe *et al*. underplay the critical role fences play in habitat conservation and protection of livelihoods in tropical Africa, where scattered islands of natural habitat persist amidst a sea of agricultural encroachment, spared often through physical demarcation of protected area boundaries (*4*). In Africa, biomass extraction and subsistence/smallholder agriculture remain the dominant drivers of degradation (*5*). While fencing can be problematic, especially for gene-flow [but see (*6*)] and large-scale mammal migration, it successfully arrests the gradual erosion of habitats, combats poaching, and can facilitate wildlife tolerance among communities (*7*).

Woodroffe *et al*. cite growing populations of unfenced carnivores/megaherbivores in North America as a model for other regions. Yet in Africa, the notion of rural communities enthusiastically sharing dwindling environmental space with wildlife is an ideal for which both wildlife and the rural poor suffer considerable costs (*8*). While it may be tempting to generalize across biogeographic realms, the billion-strong African population is expected to quadruple this century (*9*), with rising demands for land and increased potential for human-wildlife conflict. There is little evidence that large, sometimes dangerous, animals can successfully move through agricultural landscapes in the absence of fences, and it would be unwise to assume that islands of irreplaceable biodiversity would remain intact should fencing be removed.

Fences should be recognized as a fundamental conservation tool that may often be the best option for a specific set of circumstances. Decisions on fencing must be based on context-dependent evaluation of all alternatives, rather than dismissed as a last resort.

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